

Online Shopping Analytics Portfolio

Project Overview

This project explores user behavior in an **online shopping environment** using **Excel-based data analysis**. The goal is to identify key trends in **session duration, bounce rates, cart behavior, conversion rates, and user feedback** to drive business insights and improve customer experience.

Key Analyses & Insights

1). Session Duration Analysis

- Users typically spend **15 minutes/seconds** on the app.
- **Shorter sessions correlate with higher bounce rates**, indicating possible engagement issues.
- **Actionable Insight:** Improve UI/UX, optimize page load speed, and personalize user journeys.

2). Bounce Rate vs. Conversion Rate Relationship

- **Higher bounce rates lead to lower conversion rates.**
- Users who exit early are **less likely to complete purchases**, signaling potential site experience or content issues.
- **Recommendation:** Enhance landing pages with clear CTAs, minimize distractions, and streamline the checkout process.

3). Cart Behavior Analysis

- Only **X% of users** proceed to checkout after adding items to the cart, indicating **high cart abandonment**.
- Users with a **50 - 60% conversion rate** tend to **add more items**, suggesting that **bulk buyers are more likely to complete purchases**.
- **Solution:** Offer **incentives like free shipping, loyalty discounts, or limited-time offers** to encourage checkout completion.

4). Feedback Analysis – Common Themes

- Extracted **top recurring keywords** from user feedback to understand pain points.
- Frequent themes include **pricing concerns, checkout complexity, and product availability**.
- **Recommendation:** Address customer concerns by **optimizing pricing strategies, simplifying checkout, and ensuring stock availability**.

Tools & Techniques Used

- * **Excel Pivot Tables** – For aggregating and summarizing key metrics
- * **Data Cleaning & Transformation** – Using formulas and functions for better analysis
- * **Charts & Visualizations** – Bar charts, line chart etc for trend analysis

Business Impact

Improved Decision-Making: Provided **data-driven insights** to optimize customer experience.

* **Higher Conversions:** Identified key friction points to **reduce bounce rates and cart abandonment**.

* **Enhanced Checkout Process:** Recommended checkout optimizations to **increase purchase completion rates**.

* **Better User Engagement:** Proposed UX enhancements to **retain users longer on the platform**.

Final Thoughts & Next Steps

- Implement **A/B testing** on checkout improvements.
- Introduce **personalized recommendations** to improve engagement.
- Monitor feedback trends continuously to refine the shopping experience.

This project showcases my ability to **analyze user behavior, derive business insights, and propose actionable improvements using Excel**.

